

REMARKS

Claim 7 has been cancelled without prejudice. Claim 5 (the independent claim) has been amended to further point out the distinctions between applicants' invention and the closest prior art which is cited in the application. In addition, new claims 9 and 10 have been added, dependent from claim 5, which offers additional patentable distinctions from the cited prior art. Claims 5 and 8-10 are pending in the application.

As now set forth, independent claim 5 recites a transport system for transporting and handling microtiter plates for use in high throughput screening, diagnosis and/or combinatorial chemistry comprising modules with devices for at least one or more of the following: preparing specimens, introducing specimens, optical readout, plate storage, and devices for further processing steps or readout steps. The system includes at least one central transport system, internal transport system for transporting the microtiter plates between the different devices and the at least one central transport system for asynchronous plate transfer between individual modules via input and output buffers. The internal transport system transports the microtiter plates by means of revolving tables with sliding units. The input and output buffers are provided within the individual modules. The transportation of the microtiter plates by means of revolving tables with sliding units was originally set forth in claim 7 and is further supported in the specification in Fig. 4 and on page 7, lines 23 and 24.

New claims 9 and 10 present alternative variants to the presently claimed invention. In claim 9, there is a recitation of a sensor which detects whether or not the respective side of the revolving table is unoccupied to ensure that no collisions occur so that a microtiter plate can be loaded for return transport. This feature is indicated in the specification on page 8, lines 4-6.

Claim 10 sets forth the possibility of a clock operation so that the revolving table is always inserting one microtiter plate and guiding out another microtiter plate. This variant is set forth on page 8, lines 7-9 of the specification.

As now set forth, claim 5, and those claims dependent upon claim 5, clearly and patentably distinguish over the principal reference Stylli. The Examiner had rejected the

previous claims under 35 U.S.C. § 102(b) as being anticipated by this reference. In this rejection over the prior claims, the Examiner believes that Stylli provides input and output buffers within the modules. The Examiner refers to the specification of Stylli to show that the sample distribution module often will include a plate buffer, e.g. realized as a stacker. Such a stacker works as an intermediate buffer for the plates containing the samples. While stackers and intermediate buffers are also provided in the invention claimed in the present application, applicants have now particularly pointed out an important and patentable distinction over the teachings of Stylli.

Thus the system of Stylli comprises a central transport system with several lanes for each direction. The transport system shown in Fig. 5 has two lanes for each direction, one of the two lanes is a passing lane and used for the fast transport of plates to modules further away. The other lane is a so-called queuing lane for one or more modules. The plates queue along the lane in front of the module and are transported into it one by one.

For the transport from the lanes into the modules, in Stylli, a lift and transfer mechanism (LAT) 315 is provided, c.f. page 31, last paragraph of Stylli. Those LAT are specified as belt driven conveyors that intersect with a lane. The belts are located below the plane of a lane when the LAT is not in operation. Upon activation, an LAT is raised to provide contact of the belts with the bottom of the plate to be transferred. Further details with respect to the LAT are not disclosed in Stylli.

In contradistinction to Stylli, the system of the present application, on the other hand, has only one transport lane in the central transport system according to Fig. 4. On page 5, further possible realizations for the transport system are described.

In connection with Fig. 4 on page 7, second to last paragraph, the transport of the plates into the modules is described in more detail. A microtiter plate MTP is lifted from the central transport system TS and conveyed to a revolving table DT via a stopping-sliding device, the latter not being shown. The revolving table DT revolves then by 180° and transports the microtiter plate further inwards, e.g. to other revolving tables which take over the microtiter plate or to an internal conveyor belt in the module. The advantage of using one or more revolving

tables as input and output buffers is that at the same time a microtiter plate is transported into the module, a plate which is deposited on the opposite side of the revolving table is transported out of the module and subsequently can be conveyed to the central transport system by the stopping-sliding device.

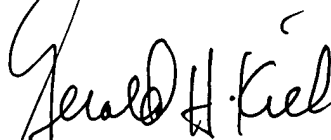
While both devices described by Stylli and in the pending application make use of stackers, the claimed invention in the present case makes additional use of the aforementioned revolving tables DT as input and output buffers. By using those revolving tables, input and output can be accelerated advantageously. By using a conveyor belt (LAT in Stylli) and optionally by using a stacker – which is not of importance with respect to the input and output – the plate can be transported either in the one direction or in the opposite direction since the transporting direction of the belt has to be inverted. In the case of using revolving tables, the time for input and output can be shortened since a gripping device has to wait only a very short time after it has deposited a plate for transport into the module on the revolving table, i.e., the time which is needed for rotating the revolving table by 180°. Then it can pick up a sample plate which has to be transported out of the module and put this sample plate on the transport system.

Thus, by using revolving tables as input and output buffers, the workflow is shortened and will become more efficient in this way. It must be understood that the revolving tables are not used as intermediate storage or as stackers as the Examiner has proposed from Stylli.

Based on the above, it is sincerely believed that Stylli neither teaches nor proposes a system as presently claimed in claim 5 of the present application. The additional variants set forth in claims 9 and 10, similarly are not disclosed in Stylli.

All of the claims, therefore, are believed patentable over the cited art and this application should be promptly passed to issue. If this Amendment is not entered for purposes of allowance, please enter it for purposes of appeal.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald H. Kiel". The signature is written in a cursive style with a large initial "G".

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